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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/662,547	09/15/2003	Simon Anne de Molina	1316N-001670	2269
27572	7590	07/06/2005	EXAMINER	
HARNESS, DICKEY & PIERCE, P.L.C.			SCHWARTZ, CHRISTOPHER P	
P.O. BOX 828			ART UNIT	
BLOOMFIELD HILLS, MI 48303			PAPER NUMBER	
			3683	

DATE MAILED: 07/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/662,547	Applicant(s) DE MOLINA, SIMON ANNE	
	Examiner Christopher P. Schwartz	Art Unit 3683	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 April 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7-15 and 18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 7-15 and 18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

[Signature]
CHRISTOPHER P. SCHWARTZ
PRIMARY EXAMINER

DETAILED ACTION

1. Applicant's amendment filed 4/25/05 has been received. Claims 7-15 and 18 are currently pending.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 7-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over DeMolina et al. in view of Lee or Dressell, Jr. et al. '415.

Regarding claim 7 DeMolina et al. discloses an absorber with which applicants are well familiar including a pressure tube 14, a piston body 40, a piston rod 18, first and second valve assemblies 58,66, a piston nut 70, a third fluid passage way 80,82,86 and a sleeve 78, all functioning in the claimed manner.

DeMolina et al. lacks showing a plurality of holes formed in a helical formation and the sleeve 78 covering all of the plurality of holes to fully close the third flow path. However, as discussed previously, such an idea is old and well known in the art.

Lee or Dressell, Jr. et al. '415 is relied upon to provide a general teaching of this idea. In Lee see orifices at 34 and see column 4 around line 40 where it is stated that

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the orifices 34 may be arranged in helical patterns or others. Note that the arrangement of the orifices need not be specific for the proper functioning of the damper.

Dressell, Jr. et al. '415 shows a helically arranged grooves or channels in figures 2 and 10 that may be progressively covered by a sleeve 76 dependent upon its rotational position. This reference is relied upon to show it is known to use a progressive metering effect of fluid passages to control the responsiveness of a shock absorber.

One having ordinary skill in the art at the time of the invention would have found it obvious to have provided a plurality of holes, as claimed, in the piston nut of DeMolina et al., as taught generally by Lee or Dressell, Jr. et al. '415, and that are progressively covered by the sleeve 78, simply dependent upon the damping characteristics desired from the absorber. It is notoriously well known in the art to provide dampers, as shown by DeMolina, with progressively covered holes as one well known means to further regulate the damping characteristics (i.e. soft, medium and hard rides) of a shock absorber dependent upon the specific handling characteristics desired from a particular vehicle.

Note that as the sleeve 78 of DeMolina travels back and forth during the damping cycle, it could be made capable of covering all of the holes to close the third flow path, as modified. As discussed above, such a modification would be obvious and simply depend upon the damping characteristics desired.

Regarding claims 8-11 as modified above, these requirements are met.

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4. Claims 12-15, 18 rejected under 35 U.S.C. 103(a) as being unpatentable over DeMolina in view of Dressell et al. '415 or Schupner '122 ..

Regarding claims 12-15 and 18 DeMolina lacks a showing of the third passageway comprised of a single hole and groove with a depth of the groove decreasing from the hole to a terminal end and the sleeve simultaneously covering the hole and the groove to fully close the third flow path, as now amended.

The references to Dressell et al. '415 or Schupner '122 provide a general teaching showing helical grooves with varying depth with holes which open into them. Please see in particular figure 10 of Dressell

One having ordinary skill in the art at the time of the invention would have found it obvious to have provided the device of DeMolina with a single hole-groove combination, with the groove having a varying depth, as claimed, and as taught by either Dressell et al. or Schupner, simply dependent upon the type and level of damping characteristics desired from the shock absorber. Note that other arrangements of the grooves are possible, as stated in the references.

Note that as the sleeve 78 of DeMolina travels back and forth during the damping cycle, it could be made to be capable of covering the hole and groove to close the third flow path, as modified. As discussed above, such a modification would be obvious and would simply depend upon the damping characteristics desired.

Regarding claims 13-15, 18 these requirements are met.

Response to Arguments

5. As explained previously the examiner maintains the position that one of ordinary skill in the art would have found it obvious to have modified the device of Demolina et al., as taught by the references to Dressell, Lee and Shupner above since it is notoriously well known in the art to control the level of damping through progressively opened or metered passageways or channels. In response to applicant's contention "there are no helically arranged orifices or even a suggestion to have helically arranged orifices", the examiner disagrees. First, Dressell discloses in col. 2 lines 56+ (with respect to the metering sleeve 76) "This metering sleeve is locked in place with respect to the outer tube and the interlocked pressure cylinder and bearing retainer may be rotated to control the point on each groove that overlies its corresponding circular port in the cylinder. This controls the metering orifices configuration and accordingly the resistance provided to movement of the cylinder. In col. 5 lines 56+... "More than three ports may be employed in alternative embodiments and generally the spacings are arranged at exponentially decreasing distances in the direction of the rear of the cylinder." In col. 7 lines 13+ "the ports are successively closed off as the piston moves down the cylinder.." In col. 7 lines 52+ "Alternatively the ports need not be in line but could be displaced radially with respect to one another, so as to align with the spiral groove, or the ports could have different sizes, but be non-exponentially spaced, to achieve the same dynamic damping effect.

The examiner draws two easy conclusions from Dressell. First, that the number and/or spacial arrangement of the ports may be altered to achieve a similar damping

effect or tailored to a desired damping effect (see col. 7 lines 45+). Second, that the ports are in fact metered. Applicant's claimed invention is simply an obvious alternative arrangement to the invention of DeMolina as modified by the teachings of Dressell. Applicant's are also directed to the discussion in Lee (previously cited) col. 4 lines 39-40.

The reference to Schupner is relied upon for similar teachings to that of Dressell.

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

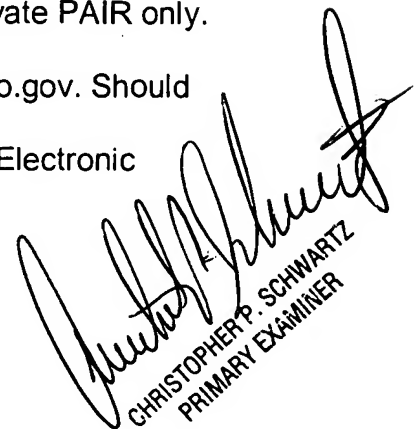
7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The references to Kirst and WO '317 disclose the known equivalence between holes and channels in two similarly design absorbers.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher P. Schwartz whose telephone number is 571-272-7123. The examiner can normally be reached on M-F 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Bucci can be reached on 571-272-7099. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Cps
6/26/05



CHRISTOPHER P. SCHWARTZ
PRIMARY EXAMINER